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As I See

DEPRECIATION

THE depreciation assumption used by many appraisers is entirely theoretical without any basis in actual experience. It is common practice among appraisers, for instance, to allow a maximum useful life of 50 years on many types of properties, particularly single-family residences, and, if the properties are income properties, to depreciate them entirely or to return the capital investment in the building in 50 years or less. We do not know what the future may bring, but we do know that there has been no period in the past when these theoretical assumptions even approached reality.

As an actual example, let us take, for instance, a residential building, practically new, which sold in 1913 for $5,000. Land comparable to the land on which this building stood at that time had a market value of $1,500, which means that the improvements had an apparent value of $3,500. Assuming, as most appraisers would have assumed at that time, that these improvements would have a 50-year life, 2% of $3,500 would be returned each year as depreciation, on the assumption that at the end of 50 years the improvements would be valueless, that the $3,500 would have been returned in cash, and that the land would still be worth about the same as its value 50 years earlier.

There has never been a time when these assumptions were true, and in order to illustrate this fact I have assumed that a typical frame residence on a 50-foot lot was appraised in 1913, that a similar building was appraised in 1929, another in 1936, and the fourth in 1951. The chart on page 255 shows the way the selling price of a typical property of this sort has gone up and down since 1913. The point at which appraisals were made is shown by the red dots on the chart. The red line slanting to the right from each of these dots would indicate the theoretical undepreciated remaining value in each of these properties in years subsequent to the appraisal. The property appraised in 1913, on this basis, should have had a theoretical value in 1954 of $2,130, or $630 plus the value of the land. According to the chart, which shows what the market actually did, it had a value of $14,650, or about seven times the amount of the assumption based on the 1913 appraisal.

If approximately the same type of property had been appraised in 1929, the appraiser would have placed a value of $2,750 on the land and $6,950 on the building, or a total of $9,700 on the property. In 1954, 25 years later, the depreciated value of the property according to the appraiser's setup in 1929 would be $6,225. Actually, the property is worth $14,650, or two and a third times as much.

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Real Estate Economists, Appraisers and Counselors

The most serious situation, however, on the 1929 appraisal would be the fact that for a period of 15 years the depreciated value of the property according to the estimates of the 1929 appraiser would have been very much above its actual value as determined by selling price. In fact, in 1936, the selling price would have been almost half of the theoretical depreciated value.

If an appraiser had been called upon to appraise a similar property in 1936, he would have appraised the land at $1,650 and the building at $3,950, or a total of $5,600. His depreciated value in 1954 would be $4,178, or less than one-third of what the property would sell for. Had the property been appraised in 1951, the appraiser would probably have put a value of about $2,750 on the land and $12,750 on the building, or a total of about $15,500. The depreciated value today would be $14,735, which is $85 more than the actual selling price.

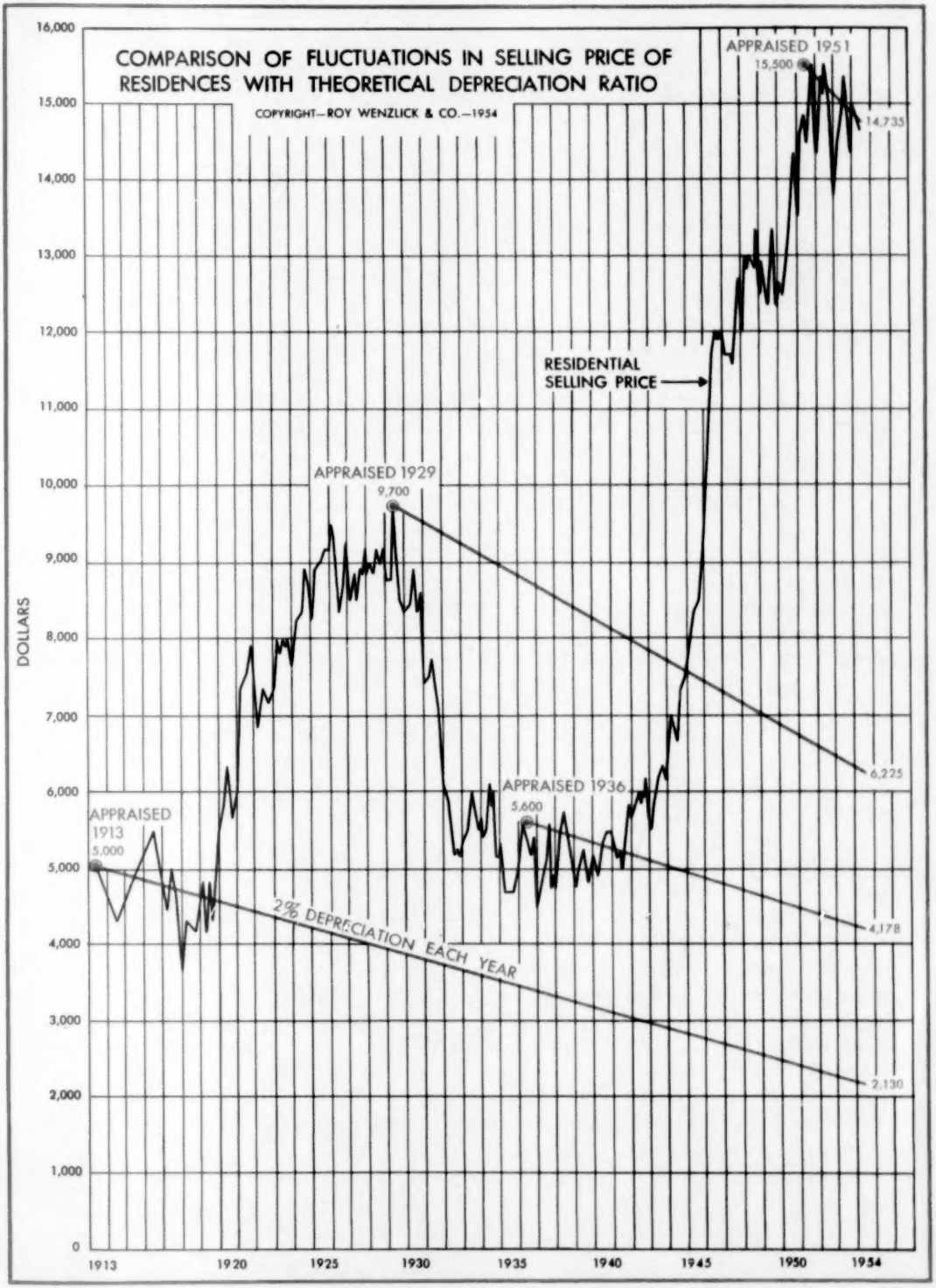
Why the discrepancies between theoretical depreciation and actual variation in value over a long period? I believe that these variations are due to the following factors.

1. A 50-year life is entirely unrealistic. Many building materials defy physical deterioration almost indefinitely. A well constructed and protected piece of concrete in a foundation might be just as strong as or stronger 500 years from now than it is at the present time. Although the Babylonians did not have the modern machinery with which bricks are made today, the remains of many brick structures built thousands of years before Christ are still in existence. Even plaster used in the tombs of the Pharaohs of Egypt is still in many cases in excellent shape, and has undergone no physical deterioration. Many buildings in Europe have lasted for 500 years or longer.

Of course, there are many materials which go into a building which are subject to normal wear and tear, and physical deterioration takes place in these materials. However, even these materials generally have a far longer life than the one usually ascribed to them. Studies made by our organization would indicate that the average house in St. Louis can figure on an average useful life of 87 years, and some houses will run very much beyond that. The average remaining life for a house which has reached the 87-year mark is still 19 years.* It should be kept in mind, in addition, that the average life expectancy of houses takes into consideration the number of houses that burn down while they are still in good condition, and those that are torn down for street widenings, parks, playgrounds and other public uses. These houses do not come down because of physical deterioration but they are wrecked in most cases because a different use has been found for the site.

2. Obsolescence is a more important factor than physical deterioration. In fact, the studies made by our organization would indicate that on most buildings, physical deterioration and dilapidation take place only after the building

*January 1953 Appraisal Bulletin - "Probable Life of Single-family Residences"; March 1953 "As I See - Accrued Depreciation."


COMPARISON OF FLUCTUATIONS IN SELLING PRICE OF RESIDENCES WITH THEORETICAL DEPRECIATION RATIO
COPYRIGHT—ROY WENZLICK & CO.—1954
DOLLARS
16,000
15,000
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
1913
1920
1925
1930
1935
1940
1945
1950
1954
APPRAISED 1951
15,500
14,735
RESIDENTIAL SELLING PRICE
APPRAISED 1929
9,700
6,225
APPRAISED 1936
5,600
4,178
APPRAISED 1913
5,000
2% DEPRECIATION EACH YEAR
2,130

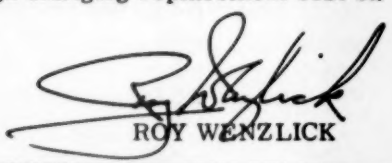
has become more or less obsolete from the standpoint of design or neighborhood. After a building loses its economic value, it is no longer well maintained, becomes dilapidated, and depreciates rapidly.

There is one factor about obsolescence which is not generally observed, and that is that the losses due to obsolescence do not take place gradually over a long period of years. We believe that if obsolescence could be isolated from all other factors and could be charted, the line would be quite irregular, with a property losing a great deal of value through obsolescence in some periods and experiencing relatively slight changes in value in other periods. The rate of obsolescence can be changed by new inventions and new styles in building. The electric light made the lighting equipment of all homes built prior to its general acceptance obsolete. With central heating came the opportunity for modern indoor plumbing. The automobile has made many buildings obsolete in their locations and, to some extent, in their designs. It also started a move toward the obsolescence of screened porches, which will apparently disappear almost entirely when air-conditioning of residential buildings becomes more widespread.

3. A third and a very important reason why theoretical depreciation has varied so greatly from actual depreciation is found in the changes which have occurred in the supply and demand relationship. During a period of a housing shortage the selling price of an older residence will approximate and sometimes exceed the cost of building a new comparable building. On the other hand, during a period of a housing surplus the selling price of a residential building must sink considerably below what would generally be considered its value in order to make it attractive in an uninterested market.

4. The greatest cause, however, of variations between theoretical depreciation and actual changes in the selling prices of buildings lies in changes in replacement cost. If selling price is charted over a long period of years against replacement cost new of the same type of property, a remarkable agreement is seen in the two lines. They will rise by approximately the same percentage during boom periods and they will fall in roughly the same proportions during depressions.

Since theoretical depreciation historically has shown little relationship to actual depreciation, the appraiser should avoid an arbitrary and indiscriminate use of depreciation allowances, particularly if these allowances are based on a 50-year life, when actual experience shows a useful life much in excess of this figure. He should further state in his appraisal certificate that the value of the property is expressed in dollars of the value on the date of the appraisal. A great part of the variation between the subsequent selling price and the depreciated value on appraisals is due to the changes in the purchasing power of money. These become effective in changing real estate prices largely through changing replacement cost on buildings.



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